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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,104	11/26/2003	Ketan Padalia	ALTRP196/A1103	1304

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EXAMINER	
NGO, CHUONG D	

ART UNIT	PAPER NUMBER
2193	

MAIL DATE	DELIVERY MODE
10/29/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/723,104	PADALIA ET AL.	
	Examiner	Art Unit	
	Chuong D. Ngo	2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 August 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/7/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-14 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 1, "the first K-LUT portion" and "the second K-LUT portion", line 17, lack proper antecedent basis.

As per claim 16, "the K-LUT", lacks a proper antecedent basis.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-3,9 and 10 are rejected under 35 U.S.C. 102(b) as being clearly anticipated applicant's admission of prior art disclosed in figure 1 of the present application.

Applicant's admitted prior art in figure 1 discloses an LE for a programmable logic device including a K input look-up table having a plurality of portions (102,104) each portion clearly connected to a routing architecture via an input line network and having circuitry for generating binary result signals(outputs from table 102 and 104)) indicative separate one a plurality of stages of the arithmetic combination of binary input signals, and clearly providing the binary result signal to an output line network, wherein the input line network is configured to provide at least a first one (C) of the input signals to both the first K-LUT portion and the second K-LUT portion in a first state, and provide a first carry-in signal to the first K-LUT portion and a second carry-in signal to the second K-LUT portion in a second state (the first and second carry-in signals are obtained from the same signal Cin); and wherein the input line network and the output line network clearly have input multiplexers and output multiplexers, respectively, as claimed.

5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tavana et al. (5,682,107) in view of Rose et al. (5,724,276).

Tavana et al. discloses in figure 1 a programmable logic device (100) including a plurality of logic array blocks (101) connected by a PLD routing architecture (see figure 2B), wherein at least one LAB includes a logic element (300, see figures 3A, and 5A) configurable to arithmetically combine a plurality of binary input signals (AB) in a plurality of stages, the LE comprising look-up table logic having K inputs (a "K-LUT") including a plurality of portions (F,J,H,J) each portion connected to a routing architecture (see figure 3A) via an input line network and having circuitry for generating binary result signals(H,C) indicative separate one a

plurality of stages of the arithmetic combination of binary input signals, and providing the binary result signal to an output line network, wherein the input line network and the output network have input multiplexers and output multiplexers, respectively, as claimed (see figure 3A-3C). It is noted the Tavana et al does not disclose least one output multiplexer coupled to select among signals at the output of the K-LUT under the control of a carry in signal from a preceding K-LUT portion to the logic element as claimed. However, Rose et al disclosed in figure 2b additional circuit elements including an output multiplexer (F5) coupled to select among signals at the output of the K-LUT under the control of a carry in signal from a preceding K-LUT portion to the logic element. It would have been obvious to a person of ordinary skill in the art to provide Tavana et al. with additional circuit element as taught by Rose et al in order to implement additional useful function in an efficient manner (see bridging paragraph of cols. 1 and 2 in Rose et al.)

6. Applicant's arguments filed on 08/07/2008 have been fully considered but they are not persuasive with respect to claim 15 because in figure 2b of Rose, when M is set to 1, the MUX F5 clear select between the outputs of LUT G and LUT S as claimed.

Applicant's arguments with respect to claims 1-3,9 and 10 have been considered but are moot in view of the new ground(s) of rejection.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuong D. Ngo whose telephone number is (571) 272-3731. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis, Jr. A. Bullock can be reached on (571) 272-3759. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chuong D Ngo/
Primary Examiner, Art Unit 2193

10/27/2008